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**Ninth Meeting of the North American, Central American and Caribbean Directors of Civil Aviation
(NACC/DCA/09)**

Port-of-Spain, Trinidad and Tobago, 25 to 27 June 2019

Agenda Item 8: Environmental Protection Matters

ICAO RECENT DEVELOPMENTS ON ENVIRONMENT – OTHER THAN CLIMATE CHANGE

(Presented by the ICAO Secretariat)

EXECUTIVE SUMMARY

This paper provides information on the status of implementation of the ICAO Assembly Resolutions A39-1, A39-2 and on activities related to environmental protection in the NACC Region since the 39th Session of the Assembly, including the progress of work by the ICAO Committee on Aviation Environmental Protection (CAEP), as well as outreach and capacity building activities to further support member States.

Action:	The action required by the Conference is in paragraph 4.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• Assembly Resolutions A39-1, A39-2 and A39-3

1. Introduction

1.1 This paper provides information on the status of implementation of the ICAO Assembly Resolutions A39-1, A39-2 and on activities related to environmental protection, including the outcome of CAEP/11 meeting, as well as outreach and capacity building activities to further support member States.

2. Eleventh Meeting of the ICAO Committee on Aviation Environmental Protection (CAEP/11)

2.1 The eleventh meeting of the ICAO Committee on Aviation Environmental Protection (CAEP/11) was held from 4 to 15 February 2019, in Montréal, Canada. Two hundred and fifty experts CAEP experts, from 31 Member States and 10 international organizations attended the CAEP/11 meeting, and agreed on a series of recommendations to address the effects of aviation on local air quality and global climate, as well as aircraft noise, culminating three years of work by the Committee.

2.2 These recommendations entail proposals for amendments to Annex 16, Volumes I, II and III, including the recommendation on a new Standard for non-volatile particulate matter (nvPM) engine emissions to be incorporated in Annex 16, Volume II. In addition, the meeting agreed to recommend

amendments to all four Volumes of the Environmental Technical Manual (Doc 9501), to facilitate the implementation of the SARPs contained in Annex 16, as well as recommended the publication of a number of new guidance documents on airports and operations. Moreover, the CAEP/11 meeting agreed to recommend new technology goals for the aviation sector, as well as the updated trends assessments on noise, emissions affecting local air quality, and emissions affecting the global climate, as the basis for further decision-making on environment by ICAO. A work plan for supersonic aircraft was also recommended by the meeting.

3. Assistance, Capacity-building and Training for the CORSIA (ACT-CORSIA)

3.1 To better support its Member States, ICAO has developed a new capacity building programme called ACT-CORSIA (Assistance, Capacity-building and Training for the CORSIA) that was endorsed by the Council in June 2018. The Council emphasized the importance of a coordinated approach under ICAO ACT-CORSIA programme to harmonize and bring together all relevant actions and promote coherence to capacity building efforts. The Council also requested that any bilateral or multilateral partnerships among States should be coordinated with ICAO, so that the global progress of such coordinated efforts would be monitored.

3.2 Under the ICAO ACT-CORSIA programme, buddy partnerships among States have been established across the Regions. Under the first phase of ACT-CORSIA, technical experts provided by donor States worked together with the CORSIA Focal Points of recipient States to provide on-site training, and closely followed-up on the preparation and implementation of the recipient States' CORSIA MRV system (in particular on the development and approval of Emissions Monitoring Plans, as well as on the establishment of national regulatory frameworks).

3.3 To ensure the consistency of assistance provided and relevant materials used through the CORSIA Buddy Partnerships, technical experts from donor States were trained and coordinated by ICAO for undertaking on-site training at recipient States. By 8 March 2019, CORSIA Buddy Partnerships across various ICAO Regions were established, involving 15 donor States and 96 recipient States (including 4 donor States and 13 recipient from the NACC Region). The most up-to-date information regarding on-site training activities by donor State experts with recipient States is provided on the ICAO CORSIA website, enabling full transparency of the assistance progress under the ICAO umbrella¹. The table in the Appendix illustrates the CORSIA buddy partnerships under the NACC Region.

3.4 Building upon this successful and coordinated approach under ICAO, the second phase of the CORSIA buddy partnerships has been established, with a focus on reporting and verification under Annex 16, Volume IV. Another round of training of technical experts from donor States was held from 13 to 14 May 2019, aiming for the starting of on-site training at recipient States under the second phase of CORSIA buddy partnerships from July 2019. More States from the NACC region are encouraged to participate in the CORSIA buddy partnerships to ensure the timely implementation of CORSIA by all States.

4. Other capacity building activities in the NACC Region

ICAO-EU Project

4.1 The ICAO-EU project has been a successful environmental initiative funded by the EU and implemented by ICAO. The project was implemented from 2014 to 2019, and supported 14 selected

¹ www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Buddy-Partnerships.aspx

States in Africa and the Caribbean with the development and implementation of States' Action Plans, as well as the establishment of CO₂ emissions monitoring systems for international aviation.

4.2 All project objectives were achieved beyond the expected results. All 14 selected States developed and submitted fully quantified Action Plans, and established National Action Plan Teams with relevant stakeholders from the aviation sector to oversee their implementation. An Aviation Environmental System (AES) was installed in each State as a tool to monitor CO₂ emissions from international aviation.

4.3 Two solar-at-gate pilot projects were implemented under the project, which consisted of the installation of a solar photovoltaic (PV) system and gate electrification equipment to power aircraft during ground operations at the international airports in Douala, Cameroon and Mombasa, Kenya. The installed capacity of these projects is of 1.25 MWp and 500 kWp respectively, and they will eliminate over 4,000 tonnes of CO₂ per year and will serve more than 7,500 flights per year.

4.4 The project also funded four feasibility studies on the use of sustainable aviation fuels (Dominican Republic, Trinidad and Tobago, Kenya and Burkina Faso), and one on the use of solar energy at an airport (Trinidad and Tobago)².

ICAO-UNDP-GEP Project

4.5 The ICAO-UNDP/GEF project supported States in implementing emission reduction measures, in particular developing States and Small Island Developing States (SIDS). Funded by the Global Environment Facility (GEF), this project was implemented by ICAO from 2015 to 2018, in cooperation with the United Nations Development Programme (UNDP).

4.6 The project included the implementation of two solar-at-gate pilot projects at two international airports in Jamaica, which could now serve as a model for other airports to follow as an emission mitigation strategy. In addition, ICAO developed a set of four guidance documents under this project on: financing; renewable energy; sustainable aviation fuels; and regulatory and organizational measures³. A Marginal Abatement Cost (MAC) curve tool was also developed to compare the cost-effectiveness of emissions mitigation initiatives.

4.7 Many States have expressed their interest to receive similar assistance on environmental protection and it is expected that additional funding will allow ICAO to extend these benefits to more Member States and replicate the pilot projects described above at a larger scale.

5. 2019 ICAO Events on Environment

5.1 The First ICAO Stocktaking Seminar toward the 2050 Vision for Sustainable Aviation Fuels was held from 30 April to 1 May 2019 at ICAO Headquarters⁴. This event stems from the endorsement by the Second ICAO Conference on Aviation and Alternative Fuels (CAAF/2)⁵, of the 2050 ICAO vision for sustainable aviation fuels (SAF). CAAF/2 noted that the 2050 vision is based on the assumptions of a progressive increased use of SAF, and that this 2050 ICAO Vision should be periodically reviewed through a stocktaking process to continuously assess progress on sustainable aviation fuel development and deployment, including through the organization of regular workshops and

² https://www.icao.int/environmental-protection/Pages/ICAO_EU.aspx

³ https://www.icao.int/environmental-protection/Pages/ICAO_UNDP.aspx

⁴ <https://www.icao.int/Meetings/SAFStocktaking/Pages/default.aspx>

⁵ <https://www.icao.int/meetings/caaf2/pages/default.aspx>

seminars, leading up to the convening of CAAF/3, no later than 2025. The second ICAO SAF Stocktaking Seminar will take place in Montreal from 28 to 29 April 2020.

5.2 The first ICAO Stocktaking Seminar provided a forum for the exchange of information among States and relevant stakeholders, and served as a basis for CAAF/3 by laying down important building blocks for the quantification of the ICAO vision. More State representatives from the NACC region are encouraged to participate in the ICAO stocktaking process and provide concrete inputs on their initiatives and expected levels of development and deployment of SAF toward the quantification of 2050 ICAO SAF Vision.

5.3 As an outcome of this Seminar, States and Organizations were also invited to contact (officeenv@icao.int) in order to express informal interest in potential future SAF feasibility studies. States and Organizations were encouraged to indicate if they would be interested in supporting States towards the development of a feasibility study, or to work towards the deployment of SAF. States were also encouraged to indicate if they would like to receive support in regard to such activities.

5.4 Following the success of the first ICAO Seminar on Green Airports⁶ (Montréal, Canada, 29 to 30 November 2017) a second such event was held in Lima, Peru, from 8 to 9 May 2019⁷. This second Seminar on Green Airports enabled discussions and the exchange of best practices on airport environmental management, and provided updates and recent developments on this subject. This event was held in cooperation with the ICAO Regional Office for the South American (SAM) Region, and the Airports Council International (ACI).

5.5 The ICAO 2019 Environmental Symposium⁸ was held from 14 to 16 May 2019, in Montréal, Canada. The Symposium presented an opportunity to gain knowledge and share information on key areas of ICAO's environmental protection activities on noise, local air quality and climate change over the triennium, leading to the 40th Session of the ICAO Assembly. It also encompassed the outcomes of key ICAO environmental events, including the Eleventh Meeting of the Committee on Aviation Environmental Protection (CAEP/11), and the 2019 ICAO CORSIA Regional Workshops, as well as developments emanating from First ICAO Stocktaking Seminar toward the 2050 Vision for Sustainable Aviation Fuels and the second ICAO Seminar on Green Airports. State representatives from the NACC region are encouraged to participate in and/or follow-up the information from the Symposium, to be better prepared for the well-informed discussion at the upcoming ICAO Assembly.

6. Action by the Meeting

6.1 The meeting is invited to:

- a) note the information provided;
- b) invite States to include environmental protection in their planning and implementation activities related to the improvement of the civil aviation system; and
- c) encourage States to participate in the stocktaking and consider their involvement in the preparation of feasibility studies to evaluate the potential for the future development and deployment of SAF.

⁶ <https://www.icao.int/Meetings/greenairports/Pages/default.aspx>

⁷ <https://www.icao.int/Meetings/GREENAIRPORTS2019/Pages/default.aspx>

⁸ <https://www.icao.int/meetings/ENVSymposium/Pages/default.aspx>

APPENDIX**CORSIA BUDDY PARTNERSHIPS UNDER THE NACC REGION**

Donor State	Recipient State
Canada	Haiti
Germany	Trinidad & Tobago
Germany	Jamaica
Italy	Antigua & Barbuda
Italy	Bahamas
Mexico/Spain/US	Belize
Mexico/Spain/US	Costa Rica
Mexico/Spain/US	El Salvador
Mexico/Spain/US	Honduras
Mexico/Spain/US	Nicaragua
Mexico/Spain/US	Guatemala
Spain	Cuba
United States	Dominican Republic

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