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COMMENTS ON THE COST IMPACT OF A GLOBAL CARBON OFFSETTING MECHANISM

(Presented by the International Air Transport Association (IATA))

EXECUTIVE SUMMARY

In recent years, there has been a marked increase in the number of carbon pricing instruments applied around the world. A similar proliferation of carbon pricing instruments on aviation would result in an unsustainable patchwork of measures for operators and for governments. In contrast, IATA believes that if a global carbon offsetting scheme to support carbon neutral growth from 2020 is the sole, global measure to address CO_2 emissions from international aviation, the costs for the industry, whilst significant, would be more manageable.

The Assembly is invited to consider the views and analysis presented in this paper.

Strategic Objectives:	This working paper relates to Strategic Objective E – *Environmental Protection*
Financial implications:	No additional resources requested.
References:	

[1] English, Arabic, Chinese, French, Russian and Spanish versions provided by IATA.

1. INTRODUCTION

1.1 In 2009, the aviation industry set three global goals to address its climate impact: a short-term efficiency improvement goal of 1.5% per annum; a mid-term goal to stabilise net CO_2 emissions at the 2020 level through carbon-neutral growth; and a long-term goal to halve aviation CO_2 emissions by 2050 when compared with 2005 levels.

1.2 It is in respect of the second of these goals where a global offsetting scheme has a fundamental role to play.

1.3 A global carbon offsetting scheme for international aviation is intended to be a complementary and temporary emissions gap-filler in addition to the basket of measures available to the sector. It is not intended to replace efforts to improve fuel efficiency through new technology and improved operational and infrastructure measures. Nor would the scheme make fuel efficiency any less of a day-to-day priority for operators.

1.4 There are, understandably, questions around the cost impact of the current policy proposal to the economy at large and the potential effect that this may have on air connectivity. Thorough analysis by CAEP and by the industry has shown that a single, global carbon offsetting scheme in accordance with the design parameters under consideration would provide a cost-effective option for a market based measure to support carbon neutral growth from 2020 for the sector with low impact on the economy at large.

1.5 On the other hand, the absence of such a globally-agreed mechanism will lead to a costly and complex patchwork of national and regional policy measures. This would have a much more significant impact on economic development than a global offsetting mechanism would have by reducing connectivity, trade and tourism.

2. THE RISK OF PATCHWORK

2.1 The safe, orderly and efficient functioning of today's air transport system relies on a high degree of uniformity in regulations, standards and procedures. The use of unilateral measures, in particular economic measures, undermines this foundation. Attention needs to be given to avoid duplication with existing measures or the layering of measures within a State or a group of States.

2.2 In recent years, there has been a marked increase in the number of carbon pricing instruments, such as CO_2 taxes or emissions trading schemes, applied around the world. A similar proliferation of carbon pricing instruments on aviation would result in an unsustainable patchwork of measures for operators and for governments. Indeed, there are strong indications that a number of States around the world have considered the adoption of economic measures in this area and the International Monetary Fund has specifically called for a tax on CO_2 on aviation and shipping.

2.3 In our view, there is a significant risk that policy-makers will use the absence of agreement in ICAO as a justification for the introduction of unilateral measures. Similarly, a scheme under ICAO which is implemented on a voluntary rather than a mandatory basis could have the same result.

2.4 It is on this basis that IATA supports the proposal to implement a global offsetting scheme as the single, mandatory market based measure to address aviation's CO_2 emissions. This will obviate the need for existing and new economic measures to be applied to international aviation emissions on a regional or national basis.

2.5 We believe that if a global carbon offsetting scheme to support carbon neutral growth from 2020 is the sole, global measure to address CO2 emissions from international aviation, the costs for the industry, whilst significant, would be more manageable.

3. COST ASSESSMENT

3.1 At an industry level, according to CAEP analysis,[2] a global, mandatory offsetting scheme to support carbon neutral growth from 2020 would cost a total of between USD 2.2 billion and USD 6.2 billion in 2025. This would increase to between USD 8.9 billion and USD 23.9 billion in 2035. Depending on the assumptions and year of reference, this means that operators would be able to achieve the 2020 Carbon Neutral Growth goal by paying on average between USD 2.66 and 18.82 per ton of CO_2 emitted.

Table 1: Estimated costs at industry level[3]

Estimated total industry cost	**2025**		**2030**		**2035**	
	Low estimate	High estimate	Low estimate	High estimate	Low estimate	High estimate
CO_2 from international aviation	828 mio tCO2	879 mio tCO2	945 mio tCO2	1,048 mio tCO2	1,101 mio tCO2	1,270 mio tCO2
CO_2 to be offset	142 mio tCO2	174 mio tCO2	288 mio tCO2	376 mio tCO2	443 mio tCO2	596 mio tCO2
Total cost of offsetting	$2.2 bn	$6.2 bn	$4.3 bn	$12.4 bn	$8.9 bn	$23.9 bn

3.2 While the increase in costs is not insignificant, a harmonized global system would be more cost-effective for the airline industry to adjust to in comparison with increases in costs applied through national or regional schemes, which would create differing compliance requirements and the risk of market distortions. Again, this underlines the need for a global offsetting scheme instead of national or regional measures.

[2] *See EAG/15, 20-21 January 2016 – Presentation of Results of Technical Analysis by CAEP, pp3-5.*

[3] *The low estimate is based on the CAEP's "optimistic" CO2 scenario and IEA's low carbon price forecast. The high estimate is based on CAEP's "less optimistic" CO2 scenario and IEA's high carbon price forecast.*

3.3 In order to illustrate the magnitude of the impact of the proposed global offsetting mechanism at an individual flight level, we have set out below examples of the estimated cost in 2030 per flight on a number of illustrative routes. For the purposes of comparison, the cost of fuel is indicated, along with a USD 10 per barrel fuel price increase on the same routes. The examples are provided for illustrative purposes only and an individual operator would of course be free to decide whether or not to pass on such costs to its own passengers and freight customers. The estimates also do not take into account any potential phased implementation of the scheme.

Table 2: Estimated costs for illustrative flights

Per flight cost of GMBM in 2030	**100% Sectoral** Low estimate	**100% Sectoral** High estimate	**Fuel cost** ($473 per t)	**$10 per barrel fuel price increase**
Casablanca – Madrid Boeing 737-800 469 nm, 3.5t fuel	$51	$131	$1,656	$278
Frankfurt – Addis Ababa Boeing 787-800 2883 nm, 40t fuel	$578	$1,497	$18,920	$3,172
Mexico – Buenos Aires Airbus A350-900 3984 nm, 63t fuel	$910	$2,357	$29,799	$4,996
Dubai – Sydney Airbus A380-800 6500 nm, 176t fuel	$2,542	$6,585	$83,248	$13,957

4. CONCLUSION

4.1 The Assembly is invited to consider the views and analysis presented in this paper.

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