



ICAO

**Twenty-Fourth Meeting of the AFI Planning and Implementation Regional Group
(APIRG/24)
(Virtual – 2 to 4 November 2021)**

Agenda Item 4: Other Air Navigation Initiatives

IATA Fly Net Zero by 2050-ATM and infrastructure operational efficiencies quantification challenges.

(Presented by IATA.)

SUMMARY

This working paper provides a brief overview of the IATA Fly Net Zero by 2050, the Commitment of airlines to achieve net zero carbon emission by 2050, It highlights the importance of coordinating our efforts, across the air transport industry, towards implementing initiatives that can mitigate the impact of climate change.

The working paper will focus on the Infrastructure and Air Traffic Management (ATM) operational efficiency element of the emissions reduction strategy.

The Working will paper highlight some of the challenges faced by stakeholders in the quantification of ATM efficiencies associated with improvements in flight and routes efficiencies e.g., User Preferred Routes, Flight Plannable Directs and Free Route Airspace (FRA).

Action by the meeting is to establish a team within the Aerodrome and Airspace Operations Sub-group (AAO SG) to agree on a common approach and methodology to quantify infrastructure and ATM efficiencies to monitor and track CO₂ emission reduction in order to achieve ATM efficiency targets and UN sustainability development goals.

<i>Strategic Objectives</i>	Air Navigation Capacity and Efficiency. Environmental Protection
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1 INTRODUCTION

1.1 IATA member airlines passed a resolution to support net-zero carbon emissions by 2050 at its 77th Annual General Meeting held in Boston, USA, on the 4th of October 2021. The resolution brings air transport in line with the objectives of the Paris agreement to limit global warming to 1.5°C.

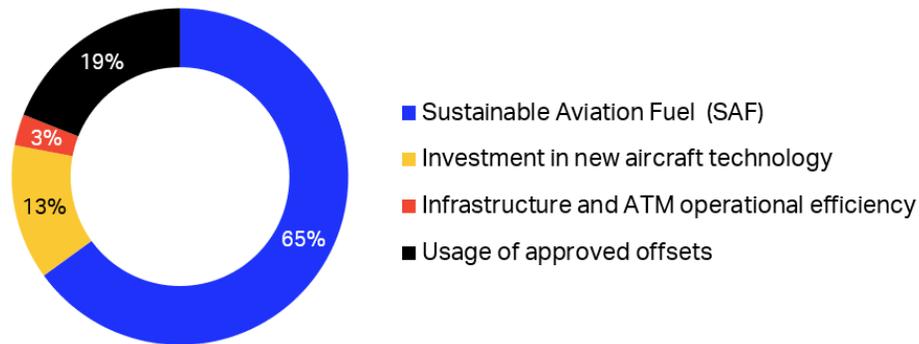
1.2 Current projections estimate that demand for air passenger journeys in 2050 will exceed 10 billion. The expected 2021-2050 carbon emissions on a ‘business as usual’ trajectory is projected to be 21.2 Gigatons of CO₂.

1.3 Mitigating that amount of carbon will be an enormous technological challenge. Success will require the coordinated efforts of the entire industry including airlines, airports, air navigation service providers, manufacturers, and significant government support.

2. DISCUSSION

2.1 Net Zero Carbon Emissions can be achieved through a combination of maximum elimination of emissions at source and the use of approved offsetting and carbon capture technologies, as follows:

1. Usage of Sustainable Aviation Fuel (SAF)-65%
2. Investment in new aircraft technology-13%
3. Continued improvement in infrastructure and ATM operational efficiency-3%
4. Usage of approved offsets-19%.



2.2 In the recent past, ICAO and States supported by IATA have implemented various initiatives that support continued improvement in infrastructure and ATM operational efficiency.’ e.g., User Preferred Routes (UPR), Flight Plannable Directs, Free Routes Airspace (FRA) etc.

2.3 However, there is a challenge in the quantification of emissions reduction, due to resources constraints because of reduced staff occasioned by the COVID-9 pandemic or lack of capacity within various organizations that are involved in the initiatives.

2.4 Therefore, there is a need to bring together all stakeholders and agree on a common approach and methodology that will ensure the collection and analysis of relevant data by airlines, ANSPs and airports in order to quantify emissions reduction in the region.

2.5 Success to achieve the net-zero objective requires the entire industry and governments to work together, together with a clear mechanism to monitor and track CO₂ emission reduction,

3 ACTION BY THE MEETING

3.1 The meeting is invited to take note of the above information, and consider the following action:

Establish a team within the AAO SG composed of members from States, Air Navigation Service Providers, airports, airlines, manufacturers, and international organizations to agree on common approach, methodology, KPIs etc., to track and monitor CO₂ emission reduction against set targets in the region.