



ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 28: Aviation Safety and Air Navigation Policy

ATM INFRASTRUCTURE SHORTCOMINGS

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

EXECUTIVE SUMMARY

IATA and other forecasts predict that there will be a doubling of air traffic demand over the next two decades. This year alone, we expect that there will be over 4.6 billion travellers, growing to over 8.2 billion by 2037. It is also clear that the desire for more connectivity will put increasing pressure on the air transport system, a system that is already experiencing many challenges.

In this regard, IATA has identified the following three key areas that should be considered a critical part of any infrastructure improvements:

- a) efficient service;
- b) improved capacity to meet present and future operational requirements; and
- c) greater openness, and consultation.

Action: The Assembly is invited to urge States, to:

- a) implement, following a proper operational assessment and prioritization, the necessary infrastructure components that will support the existing and projected volumes of traffic, in alignment with the Global Air Navigation Plan; and
- b) engage in a partnership with all aviation stakeholders to identify and address infrastructure challenges in a timely manner.

<i>Strategic Objectives:</i>	This working paper relates to the Safety, Air Navigation Capacity and Efficiency Strategic Objectives.
<i>Financial implications:</i>	Negligible for ICAO, for service providers the investment required for implementation which will be offset by efficiency benefits.
<i>References:</i>	

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

1. INTRODUCTION

1.1 IATA, in collaboration with forecast developers predict that there will be a doubling of air traffic demand over the next two decades. This year alone, we expect that there will be over 4.6 billion travellers, growing to over 8.2 billion by 2037. It is also clear, that the desire for more connectivity will put increasing pressure on the air transport system, a system that is already experiencing significant delays.

1.2 Although the ICAO Global Air Navigation Plan (GANP) provides a strategic methodology for leveraging existing technologies, future development based purely on State/industry agreed operational objectives may not be sufficient or timely to meet this expected growth in demand. Partnerships between airports, air navigation services providers (ANSPs), regulators, and governments will need to be solidified. The need for fast, reliable, and affordable air travel will require efficient on-time operations, predictability, and low operating costs. Finding the balance between efficiency and cost will be the challenge.

1.3 Better cooperation and collaboration amongst States, will also be key to improving the capacity of air and ground infrastructures. However, in order to reduce the inefficiencies which lead to delays, unnecessary expenditure of emissions, and higher costs for the travelling public, associated political and operational challenges will need to be addressed.

1.4 Urgent measures will need to be taken in order to correct infrastructure shortcomings. In alignment with the GANP. Industry is willing to assist in establishing the appropriate systems/processes that will enable the development of the much needed infrastructure enhancements and related procedures in an efficient and cost-effective manner.

2. DISCUSSION

2.1 In light of the above and in addition to safety considerations, IATA has identified three key expectations from the aviation infrastructure service providers:

- a) efficient service;
- b) improved capacity to meet present and future operational requirements; and
- c) greater openness, and consultation.

2.2 *Efficient service*

2.2.1 Airlines need efficient, reliable and cost-effective air traffic management. In many parts of the world, progress on eliminating delays has been slow, cost efficiency is below accepted standards and reaching a crisis point. These inefficiencies limit an operator's ability to optimize its available resources. Aircraft capabilities are not always met with equivalent procedures and matching infrastructure.

2.2.2 Infrastructure improvement decisions have not always been taken in alignment with the ICAO GANP and in response to operational requirements. Before any technology implementation takes place, a positive cost-benefit analysis justifying the investment must be performed in consultation with

airspace users. The cost of infrastructure can be reduced by using new investment models such as Public-Private-Partnerships.

2.3 *Improved capacity to meet present and future operational requirements*

2.3.1 Capacity provision is perhaps the greatest concern. We already find difficulty in coping with today's demand. A significant amount of preparatory work is required to plan for and meet the expected doubling of demand over the next two decades.

2.3.2 Even taking into consideration the potential for changes in the average size of an aircraft, which may either lessen or increase the number of actual flights, estimates show that in the future we could see up to 80 million flights a year, which is double that of today. And it is entirely possible that manned flights will be sharing airspace with over 80 million unmanned aircraft flights. Combined, the constraints placed on airspace and infrastructures will be of a magnitude and nature, greater than we observe today.

2.3.3 In order for States and ANSPs to manage this increase, flexibility and adaptability are essential. Although new technologies and capabilities are evolving at a rapid pace, weather patterns are becoming more volatile which has the potential to outpace these new capabilities. These items will greatly impact staffing levels, training, equipment procurement, operations, and investment plans. States and ANSPs, at every level of their business, will need to take these challenges into account, as they develop their forward planning and implementation.

2.4 *Openness and consultation*

2.4.1 The third expectation is openness and consultation. All stakeholders are partners in the air transport business. Despite signs of increasing cooperation, we are not moving fast enough to reform and modernize the aviation system. Similar to the time needed to adopt new avionics or procedures into aircraft, we acknowledge that it will take a significant amount of time for States and ANSPs to implement infrastructure changes needed to meet the growing demand. Therefore, we need to ensure the provision of services and infrastructure is more forward-thinking, customer focused, financially autonomous, and performance driven.

2.4.2 We believe this can only be achieved by building on partnerships, collaboration, and cooperation as we transform today's infrastructure into a cost-effective system. Only through this cooperation and harmonization, will we be able to remove the invisible borders that do so much to limit the efficiency and capacity of the system.